

What is claimed is:

1. A hybrid automatic translation apparatus employing a combination of a rule-based method and a translation pattern  
5 method, the hybrid automatic translation apparatus comprising:

a morpheme analyzing block for analyzing a morpheme of an inputted source sentence;

a tagging block for determining parts of speech with respect to the result of the morphological analysis;

10 a syntactic structure analyzing block for performing a parsing to the tagging result to output a parsing tree;

a construction pattern generating block for extracting only a chunking result of phrases belonging to sub-category of verb in the parsing tree to generate a construction pattern;

15 a construction pattern translating block for translating the construction pattern by using a translation pattern;

a clause structure analyzing block for analyzing a clausal structure of the construction pattern if the translation pattern matching of the construction pattern fails; and

20 a partial pattern translating block for recognizing a partial construction pattern with respect to each sub-clause with reference to the result of the clause structure analysis, and performing a translation using a partial translation pattern.

2. The hybrid automatic translation apparatus of claim 1, wherein the morpheme analyzing block performs a preprocessing chunking when the morphological analysis of the inputted source sentence is performed.

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3. The hybrid automatic translation apparatus of claim 1, wherein the tagging block outputs two optimum candidates as the tagging result to the syntactic structure analyzing block.

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4. The hybrid automatic translation apparatus of claim 1, wherein the syntactic structure analyzing block selects two or three division point candidates based on divisional point syntactic clue, a presence of main verb, and a length of divided sentence, if the inputted sentence is a long sentence, a length of which is larger than a specific value, performs a parsing to the divided sentences according to the candidates, selects an optimum division point by applying parsing weights to the parsing result of the divided sentence, and outputs the syntactic parsing result according to the selected division point.

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5. The hybrid automatic translation apparatus of claim 1, wherein the partial pattern translating block generates partial construction patterns with respect to sub-clause of a translation failure node with reference to the result of the clause structure

analysis, performs a pattern translation to the partial construction pattern, replaces the translation result of the partial construction pattern with a sentence symbol "S", performs a pattern translation with respect to the construction pattern reduced by the pattern replacement, and generates a final translation result by performing a translation according to the construction components if the pattern translation using the reduced construction pattern fails.

6. The hybrid automatic translation apparatus of claim 5, wherein the partial pattern translating block performs a top-down partial pattern translation, which performs a partial pattern translation to a sub-clause of the sub-clause, with reference to the result of the clause structure analysis, if the partial pattern translation of the sub-clause fails.

7. A hybrid automatic translation method employing a combination of a rule-based method and a translation pattern method, the hybrid automatic translation method comprising the steps of:

(a) analyzing a morpheme of an inputted source sentence, performing a preprocessing chunking, and tagging the chunking result;

(b) parsing the tagging result to output a parsing tree;

(c) generating construction patterns by extracting only the chunking result of phrases belonging to sub-category of verb in the parsing tree; and

(d) translating the construction pattern by using a translation pattern;

(e) if the translation pattern matching to the construction pattern fails, analyzing a clause unit structure of the ; and

(f) generating a partial construction pattern with respect to sub-clause of translation failure node with reference to the result of the clause structure analysis, performing a pattern translation with respect to the partial construction pattern, and outputting a final translation result by combining the results of the pattern translation.

8. The hybrid automatic translation method of claim 7, wherein the step (b) includes the steps of:

selecting two or three division point candidates based on divisional point syntactic clue, a presence of main verb, and a length of divided sentence if the inputted sentence is a long sentence, a length of which is larger than a specific value;

performing a parsing to the divided sentences according to the candidates; and

selecting an optimum division point by applying parsing weights to the parsing result of the divided sentence, and

outputting the syntactic parsing result according to the selected division point.

9. The hybrid automatic translation method of claim 7,  
5 wherein the step (f) includes the steps of:

generating partial construction patterns with respect to sub-clause of a translation failure node with reference to the result of the clause structure analysis, and performing a pattern translation with respect to the partial construction pattern;

10 replacing the translation result of the partial construction pattern with a sentence symbol "S", and performing a pattern translation to the construction pattern reduced by the pattern replacement; and

if the pattern translation using the reduced by the reduced  
15 construction pattern fails, generating a final translation result by performing a translation according to the construction components.

10. The hybrid automatic translation method of claim 9,  
20 wherein if the partial pattern translation of the sub-clause fails, the step (f) performs a top-down partial pattern translation, which performs a partial pattern translation with respect to a sub-clause of the sub-clause, with reference to the result of the clause structure analysis.

11. A computer-readable medium storing program instructions, the program instruction being disposed on a computer to perform the method claimed in claim 7.

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12. A computer-readable medium storing program instructions, the program instruction being disposed on a computer to perform the method claimed in claim 8.

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13. A computer-readable medium storing program instructions, the program instruction being disposed on a computer to perform the method claimed in claim 9.

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14. A computer-readable medium storing program instructions, the program instruction being disposed on a computer to perform the method claimed in claim 10.